Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

SOME VARIATIONS AMONG SOME KANSAS WILD FLOWERS.

By F. F. CREVECŒUR, Onaga.

Read before the Academy at Topeka, December 29, 1904.

THERE is a growing disposition on the part of individuals and institutions to attempt the preservation and propagation of our useful, or otherwise desirable, native plants, in view of the almost certain extermination of many of the innocuous species due to the enlarged area brought under cultivation or put to use as pasture on account of the increase of our population.

Mrs. Oliver, at Belmont, N. Y., has set aside a tract of land for a plant preserve in that state, where the heart-endearing flowers that are rapidly disappearing may be preserved; and the United States government, through its Department of Agriculture, has taken the matter in hand and established plant-propagating gardens in connection with its Pacific coast laboratory, at Santa Ana, Cal., where all useful, beautiful or otherwise desirable plants, from all parts of the world, may be preserved and propagated. Nearer home we have a number of individuals interested in floriculture who have taken upon themselves the preservation of rare or beautiful species of our native flora. It is to these latter, more especially, that this article is dedicated, and it is hoped it may suggest search for rare specimens that occasionally may be found, but that are not known to exist, or are rarely seen.

Most people would think, on looking over a field of any of our common wild flowers, that the prevailing color, form or other quality usually seen at first glance are the only ones peculiar to each species, but on looking closer one will occasionally discover a plant differing in color or form of flower, shape or size of leaf, or height or habit of growth from the bulk of the species. Notes used in the preparation of this paper have been kindly contributed by B. B. Smyth and by Grace R. Meeker, to whom grateful acknowledgments are due. Some of the variations seen by Professor Smyth have been recorded in his "Check-list of Kansas Plants," August, 1892, and are again recorded here.

Anemone caroliniana Walter. Professor Smyth has seen plants of this species bearing flowers of all shades of color from pure white to deep purplish.

Oxalis violacea L. Miss Meeker reports having a plant of this pretty species in her garden bearing white flowers instead of the purplish-pink, the color usually seen. A white-blooming variety is also mentioned in Professor Castle's list of Franklin county plants, and Professor Smyth records the finding of the same by Miss Minnie Blake, at Highland.

Schrankia uncinata Willd. Miss Meeker reports that Professor Carleton had told her he had seen a white-flowering form of the sensitive brier in Oklahoma.

Platanus occidentalis L. Professor Smyth has seen trees of this species bearing leaves varying from the normal so as to resemble in shape those of the sweet gum, to which he has given the designation "forma styracifluifolia."

Amorpha canescens N. This shrub usually grows with several ascending stems from one root, but Professor Smyth has seen plants of this species in the southwestern part of the state that had a distinct diminutive trunk, graced with a perfect crown.

Astragalus caryocarpus Ker. The writer has seen two plants of this species with creamy-white flowers.

Desmodium dillenii Darlington. It was the writer's good fortune several years ago to find a plant of this species with creamy-white flowers.

Petalostemon (Kuhnistera) gracilis N. W. K. Professor Smyth has found this species in Pratt county with a decumbent stem and bearing fruiting heads that resembled blackberries.

Psoralea tenuiflora (floribunda) Psh. Professor Smyth has recorded a white-flowering form of this blue-flowering plant.

Rosa arkansana Best. This pretty flowering plant presents us with blossoms of all shades of color, from a pale rosy white to a deep crimson, and a pure white form is reported to have been seen in Franklin county by Miss Meeker.

Opuntia rafinesquii Eng. Professor Smyth has found specimens of this plant with cylindrical joints instead of the usually flattened ones.

Liatris pictostachya Mx., L. scariosa Willd., L. squarrosa Willd. Professor Smyth records white-flowering forms of these three species of purple-flowering plants.

Achillea millefolia L. Professor Smyth records plants with rose-colored and others with red-colored flowers, instead of the white, the form usually seen.

Actinomeris squarrosa N. The writer last summer found a plant of this species that bore on the lower part of the stem leaves beautifully variegated with pale yellow.

Helianthus annuus L. It is a fairly common sight to see flowers of this common weed that are partly or fully double. These flowers usually bloom some time before the others on the same plant, or before any are seen anywhere else. The change from a single flower to a double is supposed to be caused by some insect working in the flower-head. The past summer the writer saw a plant that bore pale sulfur-yellow flowers, and also found two plants with variegated leaves, the variegation consisting of a portion of the leaf being a pale yellow while the remainder was of the normal green.

Helianthus maximiliani Schrader, H. tracheliifolius Willd. These near relatives to the common sunflower also often bear partly to fully double flowers.

Helianthus tuberosus L. Professor Smyth records plants of this species as bearing double flowers, like its cousins above.

Lepachys tagates L. Professor Smyth records a yellow-rayed form of this plant.

Polypteris hookeriana Gr. Professor Smyth has found plants of this species in the soutwestern part of the state bearing rayless flowers.

Silphium integrifolium Mx. Professor Smyth has seen plants of this species which, instead of bearing opposite leaves—the normal form—bore leaves in whorls of three, the leaves of the whorl above being directly above the spaces between the leaves of the next whorl below. The stem of the plant in this case was six-angled.

Thelesperma gracile Gr. Professor Smyth has found throughout its range within the state plants of this species with rayless flowers.

Cnicus altissimus Willd. Miss Meeker reports having seen white-flowering thistles, but does not say of what species, but it is supposed it is this.

Cichorium intybus L. The writer found a plant the past summer in a meadow of tame grasses, where the plant has been established for a number of years, which had pale pink flowers instead of blue.

Asclepias tuberosa L. The writer found a plant of this beautiful species last summer that bore its blossoms in small umbels in racemes, there being three or four such umbels to each stem, instead of one large terminal umbel. It has not been the writer's fortune to find other than the common orange-scarlet flowering variety of this plant, but Professor Smyth told him he had met with all shades of color, from a bright scarlet to a rich golden yellow.

Gentiana puberula Mx. Miss Meeker reports the finding at Ottawa, by Prof. O. C. Carleton, of a specimen with white flowers of this pretty, late-flowering plant.

Convolvulus sepium L. The writer has several times met with plants of this vine bearing rosy-white flowers. Professor Smyth has found the same species with double flowers, the fulness being formed by the corolla being several times folded upon itself.

Phlox divaricata L. Both Professor Smyth and Miss Meeker report finding white-flowering plants of this early spring flower.

Phlox pilosa L. About twenty years ago the writer found a plant of this species, with pure white flowers. Last summer, while crossing a meadow where there were thousands of this pretty flower in bloom, a plant with white flowers with pink eye was found. Another plant had rosy-white flowers, while a third had blossoms of a lilac color with pink eyes. Several plants had blossoms of a deeper pink than the rest, verging on a crimson. Professor Smyth also records a white-flowering form of this plant.

Salvia pitcheri Torr. Both Professor Smyth and the writer have met with a white-flowering form of this blue flower.

Teucrium canadense L. Professor Smyth has found a pure white form of this plant, and the writer has found three shades of purple, from a light to a quite deep purple, among different clumps of this rather common weed.

Verbena aubletia L. Professor Smyth records a white-flowered form of this plant, and Miss Meeker says she had a plant with flowers of this color in her flower-garden.

Verbena stricta Vent. Both Professor Smyth and the writer have seen plants of this species with white flowers.

Verbena urticæfolia L. Professor Smyth reports finding plants of this species with purple-colored instead of the white flowers usually seen in this species. This is another case of the interesting variation from a lighter to a darker colored flower, a form of variation much less frequently met with than the more common one of the change from a darker to a lighter form.

Ruellia ciliosa Pursh. A white form of this purple-colored flower is recorded by Professor Smyth.

Oxybaphus angustifolius Sw. Professor Smyth records plants with linear leaves, and also a white-flowering form of this species.

Polygonum erectum L. A tall-growing form (three to six feet high) with a fastigiate habit of plant is recorded by Professor Smyth.

Polygonum pennsylvanicum L. The usual color of the flowering spikes of this weed is from a deep rosy to a deep red, but Professor Smyth reports a white-flowered form also.

Toxylon pomiferum Rafinesque. Last summer, while trimming hedge, the writer found trees of the Osage orange with leaves variegated with yellow; another tree had leaves of a glaucous green. The departure of these leaves from a normal color, as in the case of Helianthus annuus and of Actinomeris squarrosa, is supposed to have been caused by some disease or bacterial influence, and not the result of a true evolutional change.

Populus monilifera Ait. Professor Smyth has seen a tree of this species that had angular-shaped leaves instead of the cordate form.

Castalia odorata Woodw. & W. In this species we have another example of a change from a lighter to a darker colored form, a pink-flowered form of this water lily being recorded by Professor Smyth.

Sisyrinchium angustigolium Mill. The usual form of this pretty flowering grass has white blossoms, but a light blue form is often seen.

Tradescantia virginica L. The writer has seen flowers of this species from a deep bluish-purple to a deep pink, but Professor Smyth records a white-flowered form also. Miss Meeker also reports having a plant with white flowers in her flower border, where it ran riot among the grass.

Distichlis spicatea Greene. A trailing form of this grass is recorded by Professor Smyth.

Panicum crus-galli L. A dark-purple form of var. hispidum Gr. and a purple-variegated form of var. muticum are recorded by Professor Smyth.

Setaria glauca Beauvois. Professor Smyth has seen plants of this grass with red bristles instead of green.

Perhaps the writer's experience and methods for saving and transplanting rare specimens of wild plants may not come amiss. When a rare plant is found it may be transferred from its native habitat by carefully lifting it with a large ball of earth or sod so as to not disturb the roots. It may by this method be removed when in full bloom, and if it has been well done the plant will suffer no evil consequences. Some species of wild plants have long, deep-running perennial roots which do not permit of the plant's removal during the season of growth. Then it will be necessary to mark the location by planting a stake near it, or marking the spot where it is by any other method which will permit its being found during the late fall or early spring months, when it may usually be removed successfully. Such species as *Rosa blanda*, with its long underground stems, has not lent itself to a successful removal, in the writer's experience, but with proper care there is no reason why this may not be transplanted as well as other species of our wild flowers.

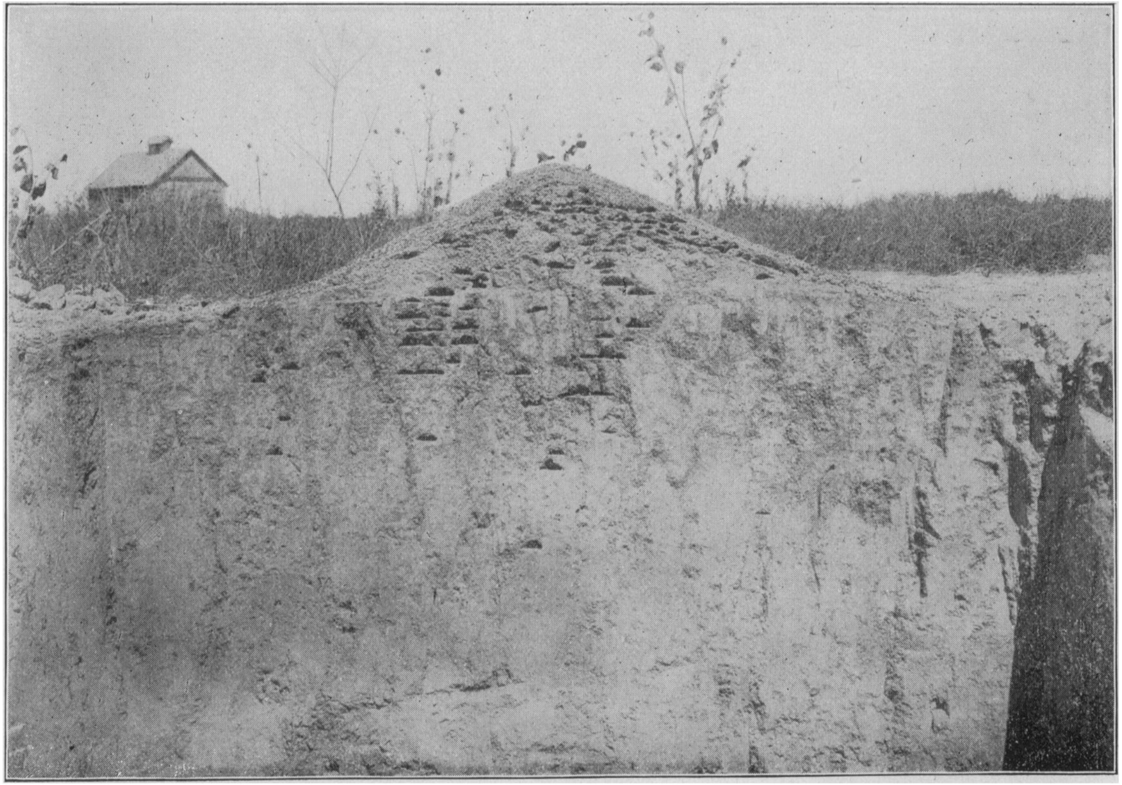

Plate XXVI.—Vertical Section of Ant Mound (No. 7 of table), Wallace, Kan. (Showing five feet of excavation.)